

CLAIMS

What is claimed is:

1. A surgical method for manipulating a graft vessel relative to a target vessel,
comprising:

making a substantially longitudinal incision in a wall of the graft vessel at an
end thereof to form a flap therein;

providing a staple holder having spaced-apart arms and a graft affixer
projecting therefrom;

placing a portion of the graft vessel between said spaced-apart arms; and
engaging the graft vessel with said graft affixer.

2. The surgical method of claim 1, further comprising pushing the graft vessel down
onto said graft affixer.

3. The surgical method of claim 1, wherein said engaging is performed at the heel of
the graft vessel.

4. The surgical method of claim 1, wherein said engaging includes everting the end of
the graft vessel onto said graft affixer.

5. The surgical method of claim 1, wherein said engaging includes penetrating a wall
of the graft vessel at least partially with said graft affixer.

6. The surgical method of claim 1, wherein said engaging includes hooking a wall of
the graft vessel with said graft affixer.

7. The surgical method of claim 1, wherein said engaging includes clipping a portion of the graft vessel with said graft affixer.

8. The surgical method of claim 1, wherein said staple holder includes a measurement feature having two spaced-apart ends; further comprising angling the graft vessel relative to the staple holder until one side of the graft vessel is positioned substantially at one end of said measurement feature and the other side of the graft vessel is positioned substantially at the other end of said measurement feature.

9. The surgical method of claim 1, wherein said staple holder includes a measurement feature having two spaced-apart and substantially unconnected indicia; further comprising angling the graft vessel relative to the staple holder until one side of the graft vessel is positioned substantially at one said indicia and the other side of the graft vessel is positioned substantially at the other said indicia.

10. The surgical method of claim 1, wherein said staple holder includes at least one spike extending therefrom, further comprising engaging the flap with at least one said spike.

11. The surgical method of claim 1, further comprising affixing the end of the graft vessel to the target vessel.

12. The surgical method of claim 11, wherein said affixing is performed by urging a plurality of connectors through the flap of the graft vessel and into a wall of the target vessel.

13. The surgical method of claim 12, wherein said connectors are staples.

14. A surgical tool for performing anastomosis between a graft vessel to a target vessel, comprising:

an anvil;

a staple holder movable relative to said anvil; and

a graft affixer projecting from said staple holder, said graft affixer configured to engage the graft vessel.

15. The surgical tool of claim 14, wherein said anvil includes an incising element at its distal end.

16. The surgical tool of claim 14, wherein said graft affixer is a spike.

17. The surgical tool of claim 14, wherein said graft affixer is a hook.

18. The surgical tool of claim 14, wherein said graft affixer is a clip.

19. The surgical tool of claim 14, wherein said graft affixer is configured to engage the heel of the graft vessel.

20. The surgical tool of claim 14, wherein said staple holder includes two spaced-apart arms and a plurality of connector bays defined in each said arm, wherein said graft affixer is located substantially between said connector bay located most-proximally in one said arm and said connector bay located most-proximally in the other said arm.

21. The surgical tool of claim 14, wherein said graft affixer is movable.

22. The surgical tool of claim 21, wherein said graft affixer is movable in response to motion of said anvil and said staple holder to one another.

23. The surgical tool of claim 21, wherein at least a part of said graft affixer is movable into said staple holder.

24. The surgical tool of claim 14, wherein said graft affixer is deformable.

25. A surgical method for manipulating a graft vessel relative to a target vessel, each vessel having a lumen therein, comprising:

making a single incision in a wall of the graft vessel at an end thereof to form

a flap therein;

creating an opening through the wall of the target vessel on a side thereof; and

approximating the end of the graft vessel with the side of the target vessel,

wherein the lumen of the graft vessel is substantially aligned with the opening in the wall of the target vessel, and wherein at least a portion of the flap contacts the outer surface of the target vessel.

26. The method of claim 25, wherein the flap forms a tissue overhang on the target vessel.

27. The method of claim 26, wherein the tissue overhang is oriented substantially longitudinally relative to the target vessel.

28. The method of claim 25, further comprising affixing the end of the graft vessel to the side of the target vessel.

29. The surgical method of claim 27, wherein said affixing is performed by urging a plurality of connectors through the flap of the graft vessel and into a wall of the target vessel.